mp 12/23

8A03 23025

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

# SEARCH REQUEST FORM

Requestor's Name: Geetha Bansal

Serial Number: 09/177,843

Date: 12/13/99 Phone: 305-3955 Art Unit: 1642

**Search Topic:**
Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevent citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevent claim(s).

Please search SeqID # 2 and # 1

Thanks

Please search as part of bigger molecule and as a short peptide.



20 prep

## STAFF USE ONLY

Date completed: 12/28/99
Searcher: Toby Port
Terminal time: 10
Elapsed time:
CPU time:
Total time:
Number of Searches:
Number of Databases:

**Search Site**
- ___ STIC
- ___ CM-1
- ___ Pre-S

**Type of Search**
- ___ N.A. Sequence
- 4 A.A. Sequence
- ___ Structure
- ___ Bibliographic

**Vendors**
- mp IG
- ___ STN
- ___ Dialog
- ___ APS
- ___ Geninfo
- ___ SDC
- ___ DARC/Questel
- ___ Other

PTO-[illegible]-90)

**********

MPSRCH (TM)

**********

Release 3.1A John F. Collins, Biocomputing Research Unit.


MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Dec 23 10:06:56 1999; MasPar time 3.26 Seconds
39.154 Million cell updates/sec

Tabular output not generated.

Title: >US-09-177-843-1
Description: (1-6) from US09177843.pep
Perfect Score: 41
Sequence: 1 GRGDSP 6

Scoring table: PAM 150
Gap 15

Searched: 170751 seqs, 21266608 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: a-geneseq35
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29 30:part30 31:part31 32:part32 33:part33
34:part34 35:part35 36:part36 37:part37 38:part38
39:part39

Statistics: Mean 13.672; Variance 32.125; scale 0.426

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description | Pred. No. |
|---|---|---|---|---|---|---|---|
| 1 | 41 | 100.0 | 6 | 39 | W86167 | Peptide used in gel c | 6.60e+01 |
| 2 | 41 | 100.0 | 6 | 18 | R99889 | RGD-contg. synthetic | 6.60e+01 |
| 3 | 41 | 100.0 | 6 | 5 | R25425 | Peptide deriv. contg. | 6.60e+01 |
| 4 | 41 | 100.0 | 6 | 2 | R24212 | Fragment of tenascin- | 6.60e+01 |
| 5 | 41 | 100.0 | 6 | 17 | R88570 | RGD-containing sequen | 6.60e+01 |
| 6 | 41 | 100.0 | 6 | 17 | R92740 | RGD-containing sequen | 6.60e+01 |
| 7 | 41 | 100.0 | 6 | 6 | R29158 | PEG-contg. peptide de | 6.60e+01 |
| 8 | 41 | 100.0 | 6 | 8 | R44046 | RGD peptide derivativ | 6.60e+01 |
| 9 | 41 | 100.0 | 6 | 7 | R35465 | Propene-amide deriv. | 6.60e+01 |
| 10 | 41 | 100.0 | 6 | 35 | W71248 | Peptide sequence of t | 6.60e+01 |
| 11 | 41 | 100.0 | 6 | 35 | W79658 | Cyclo(1,6)-Gly-Arg-Gl | 6.60e+01 |
| 12 | 41 | 100.0 | 7 | 39 | W86169 | Peptide used in gel c | 6.60e+01 |
| 13 | 41 | 100.0 | 7 | 2 | R11505 | Cell attachment promo | 6.60e+01 |
| 14 | 41 | 100.0 | 7 | 10 | R55365 | Peptide for use in an | 6.60e+01 |
| 15 | 41 | 100.0 | 7 | 20 | W09092 | Cell attachment pepti | 6.60e+01 |
| 16 | 41 | 100.0 | 7 | 9 | R46231 | Cell adhesion peptide | 6.60e+01 |
| 17 | 41 | 100.0 | 8 | 36 | W66823 | Peptide useful for al | 6.60e+01 |
| 18 | 41 | 100.0 | 8 | 16 | R96332 | RGD cyclic peptide, T | 6.60e+01 |
| 19 | 41 | 100.0 | 10 | 37 | W68564 | Cyclic RGD peptide #1 | 6.60e+01 |
| 20 | 41 | 100.0 | 10 | 36 | W66860 | Peptide useful for al | 6.60e+01 |
| 21 | 41 | 100.0 | 10 | 4 | R21012 | Cyclised integrin rec | 6.60e+01 |
| 22 | 41 | 100.0 | 10 | 19 | W07433 | Synthetic, weak, tumo | 6.60e+01 |
| 23 | 41 | 100.0 | 10 | 1 | R05989 | Cell attachment promo | 6.60e+01 |
| 24 | 41 | 100.0 | 12 | 19 | W01134 | RGD peptide 5 for gli | 6.60e+01 |
| 25 | 41 | 100.0 | 20 | 38 | W81846 | Fibronectin-like pept | 6.60e+01 |
| 26 | 41 | 100.0 | 26 | 19 | R95102 | Fibronectin, FCB port | 6.60e+01 |
| 27 | 41 | 100.0 | 26 | 31 | W53511 | Fibronectin antigen. | 6.60e+01 |
| 28 | 41 | 100.0 | 29 | 3 | P61391 | Synthetic fragment of | 6.60e+01 |
| 29 | 41 | 100.0 | 43 | 12 | R65898 | AcRGD-NLS-1-Sp-35 pep | 6.60e+01 |
| 30 | 41 | 100.0 | 44 | 12 | R65890 | Nucleic acid transfer | 6.60e+01 |
| 31 | 41 | 100.0 | 71 | 1 | R05300 | SLPIII (silk-fibroin | 6.60e+01 |
| 32 | 41 | 100.0 | 72 | 19 | R95106 | Fibronectin cell bind | 6.60e+01 |
| 33 | 41 | 100.0 | 111 | 7 | R35685 | Tryptophan aporepress | 6.60e+01 |
| 34 | 41 | 100.0 | 146 | 19 | R95140 | Silk like protein (SL | 6.60e+01 |
| 35 | 41 | 100.0 | 163 | 8 | R44152 | TNF RGD mutein #8. | 6.60e+01 |
| 36 | 41 | 100.0 | 171 | 1 | P82607 | Fusion protein derive | 6.60e+01 |
| 37 | 41 | 100.0 | 176 | 1 | P82608 | Fusion protein derive | 6.60e+01 |
| 38 | 41 | 100.0 | 258 | 11 | R60343 | Fibronectin receptor | 6.60e+01 |
| 39 | 41 | 100.0 | 274 | 7 | R34590 | Fibronectin domain #4 | 6.60e+01 |
| 40 | 41 | 100.0 | 432 | 25 | W33339 | Human fibroblast grow | 6.60e+01 |
| 41 | 41 | 100.0 | 472 | 25 | W33346 | Oligopeptide CHV-181. | 6.60e+01 |
| 42 | 41 | 100.0 | 491 | 7 | R37614 | Sequence of selected | 6.60e+01 |
| 43 | 41 | 100.0 | 695 | 31 | W53526 | Amino acid sequence o | 6.60e+01 |
| 44 | 41 | 100.0 | 1038 | 19 | R95107 | Fibronectin cell bind | 6.60e+01 |
| 45 | 41 | 100.0 | 1381 | 2 | R08032 | Human Serum Albumin a | 6.60e+01 |

ALIGNMENTS

RESULT 1
ID W86167 standard; peptide; 6 AA.
AC W86167;
DT 04-MAR-1999 (first entry)
DE Peptide used in gel contracton assays.
KW Wound contraction; reduction; inhibition; tissue regeneration; scar;
KW wound; joint motion; body deformation; gel contraction.
OS Synthetic.
PN US5851994-A.
PD 22-DEC-1998.
PF 06-JUN-1995; 473025.
PR 06-JUN-1995; US-473025.
PR 28-APR-1994; US-234979.
PA (LJOL-) LA JOLLA CANCER RES FOUND.
PI Polarek J, Schreiber R;
DR WPI; 99-080478/07.
PT Inhibition of wound contraction - with peptide derivatives rich in
PT basic amino acids
PS Example 2; Column 13; 16pp; English.
CC The invention provides methods for reduction or inhibition of wound
CC contraction that comprises administration of a peptide having more than
CC 3 consecutive basic amino acid residues. Alternatively, the peptide
CC contains the amino acid sequence Arg-Gly-Asp and a basic amino acid
CC sequence, or the peptide comprises 6-30 amino acids in which at least
CC 4 out of a sequence of 6 consecutive amino acids are basic amino acids.
CC The method is used to allow normal tissue regeneration without excessive
CC scar formation which, in the case of large wounds, can result in loss of
CC joint motion or major body deformation. This peptide is used in gel
CC contraction assays along with the claimed peptides (W86170-83) to
CC determine the activity of a peptide to reduce or inhibit gel contraction.
SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 39; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
||||||
Qy 1 GRGDSP 6

```
RESULT    2
ID   R99889 standard; peptide; 6 AA.
AC   R99889;
DT   05-NOV-1996  (first entry)
DE   RGD-contg. synthetic peptide ligand.
KW   fibrinogen; blood clotting; GPIIb-IIIa receptor; binding; complex;
KW   epitope; exposed; monoclonal antibody.
OS   Synthetic.
PN   US5470738-A.
PD   28-NOV-1995.
PF   08-JUL-1987; 070953.
PR   08-JUL-1987; US-070953.
PR   31-MAR-1988; US-175342.
PR   05-OCT-1989; US-417565.
PR   04-OCT-1993; US-131320.
PA   (SCRI ) SCRIPPS RES INST.
PI   Frelinger AL,  Ginsberg MH,  Plow EF;
DR   WPI; 96-019874/02.
PT   Monoclonal antibodies specific for ligand-bound GPIIb-IIIa receptor
PT   - useful for detection of clotting disorders and thrombi
PS   Example 1; Column 20; 20pp; English.
CC   Monoclonal antibodies specific for a ligand-induced binding site on
CC   GPIIIa, esp. one induced in a platelet-associated GPIIb-IIIa/fibrinogen
CC   complex are claimed.  The MAb binds an epitope exposed upon binding of
CC   the ligand and receptor.  The epitope is not present on non-bound ligand
CC   or receptor.  The MAbs are useful to prevent blood clotting and in
CC   diagnostics. The present sequence is a synthetic RGD-contg. peptide
CC   ligand.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 18;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6


RESULT    3
ID   R25425 standard; peptide; 6 AA.
AC   R25425;
DT   06-JAN-1993  (first entry)
DE   Peptide deriv. contg. RGD motif.
KW   Phosphodiester; liposomes; micelles; fibronectin; cell adhesion;
KW   targetting; tumour metastasis; agglutination; platelets; lymphocytes.
OS   Synthetic.
PN   J04164095-A.
PD   09-JUN-1992.
PF   26-OCT-1990; 289490.
PR   26-OCT-1990; JP-289490.
PA   (FUJF ) FUJI PHOTO FILM CO LTD.
DR   WPI; 92-239950/29.
PT   New peptide contg. arginine-glycine-aspartic acid sequence -
PT   useful in prepn. of liposome or micelles used to suppress tumour
PT   metastasis, since sequence is activation site of fibronectin
PS   Rxample 1; Page 4; 9pp; Japanese.
CC   The peptide is part of a phosphodiester bond which also comprises a
CC   hydrophobic organic gp. e.g. an isoprenoid or glycerolipid.  The
CC   new derivs. of the peptide contg. the Arg-Gly-Asp sequence are
CC   useful for the prepn. of liposomes or micelles contg. the RGD
CC   sequence.  The RGD sequence is an activation site of fibronectin
CC   which is a cell adhesion mol.  The liposomes are useful for the
CC   suppression of tumour metastasis, agglutination of platelets, and
CC   activation of lymphocytes.  They are useful for targetting anti-
CC   tumour drugs onto tumours.
CC   See also R25426.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 5;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6


RESULT    4
ID   R24212 standard; Protein; 6 AA.
AC   R24212;
DT   18-NOV-1992  (first entry)
DE   Fragment of tenascin-related peptide.
KW   Tenascin; related peptide; cell attachment; antibody; angiogenesis;
KW   tumour metastasis; solid matrix; prosthetic device; vascular graft;
KW   percutaneous device.
PN   WO9207872-A.
PD   14-MAY-1992.
PF   29-OCT-1991; U08018.
PR   29-OCT-1990; US-605920.
PR   30-OCT-1990; US-605667.
PA   (CALB-) CALIFORNIA INST BIOLOGICAL RES.
PI   Bourdon MA;
DR   WPI; 92-183625/22.
PT   New tenascin-related peptides - modulate cell attachment to
PT   tenascin, useful in inhibition of tumour metastasis and
PT   angiogenesis
PS   Disclosure; page 8; 60pp; English.
CC   The peptide may form an N- or C-terminal fragment of the generic
CC   peptide of R24192, which is a tenascin-related peptide. This
CC   peptide mimics the ability of tenascin to promote cell attachment.
CC   The peptide and antibodies raised to it can be used to modulate cell
CC   attachment to tenascin, esp. to inhibit tumour metastasis and
CC   angiogenesis. The peptide is pref. attached to a solid matrix, eg
CC   collagen, nitrocellulose, polyester, glass, synthetic resin, long-chain
CC   polysaccharide or synthetic resin fibre. It is esp. operatively linked
CC   to a solid matrix forming a prosthetic device, percutaneous device,
CC   vascular graft, etc. For topical admin. it is formulated into a
CC   lotion, salve, gel, colloid, powder etc.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 2;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6


RESULT    5
ID   R88570 standard; peptide; 6 AA.
AC   R88570;
DT   04-SEP-1996  (first entry)
DE   RGD-containing sequence, for controlling cell proliferation.
KW   Laminin-derived peptide; bioartificial; regeneration; nerve;
KW   3-D hydrogel extracellular matrix; proliferation; neurite;
KW   replacement; cartilage; tendon; muscle; bone; skin.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   peptide         2..4
FT                   /note= "Claimed core peptide, claim 2"
PN   WO9602286-A1.
PD   01-FEB-1996.
PF   20-JUL-1995; U09282.
PR   20-JUL-1994; US-280646.
PA   (CYTO-) CYTOTHERAPEUTICS INC.
PI   Aebischer P,  Bellamkonda RV,  Ranieri JP;
DR   WPI; 96-105660/11.
PT   Bio-artificial 3-D hydrogel extracellular matrix comprising hydrogel
PT   derivatised with adhesion molecules - useful for promoting in vivo
PT   regeneration of severed nerves, tissue replacement and cell
PT   manipulation
PS   Claim 42; Page 497; 65pp; English.
CC   The sequences given in R88569-71 are laminin-derived peptides which
```

```
CC   were used in the bioartificial 3-D hydrogel extracellular matrix
CC   of the invention to control the distribution of cells.  These peptides
CC   are particularly useful in promoting cellular proliferation in neurites.
CC   These peptides are used to derivatise the hydrogel.  The hydrogel is a
CC   polysaccharide and has a pore radius of > 120 nm, pref. 150 nm.  The
CC   hydrogel is useful for promoting in vivo regeneration of a severed
CC   nerve.  It may have cells suspended in it and may be used to promote
CC   in vivo replacement of cartilage, tendon, muscle, bone or skin.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 17;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6


RESULT    6
ID   R92740 standard; peptide; 6 AA.
AC   R92740;
DT   03-SEP-1996  (first entry)
DE   RGD-containing sequence, for controlling cell distribution.
KW   Control; distribution; bioartificial organ; BAO; cellular attachment;
KW   neurotransmitter; hormone; cytokine; growth factor; enzyme.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   peptide         2..4
FT                   /note= "Claimed core peptide"
PN   WO9602646-A2.
PD   01-FEB-1996.
PF   20-JUL-1995; U09281.
PR   20-JUL-1994; US-279773.
PR   09-MAY-1995; US-432698.
PA   (CYTO-) CYTOTHERAPEUTICS INC.
PI   Aebischer P,  Cain BM,  Doherty EJ,  Gentile FT,  Hammang JP;
PI   Holland LM, Schinstine M,  Shoichet MS,  Winn SR;
DR   WPI; 96-105908/11.
PT   Controlling distribution of cells in bio-artificial organs - e.g. by
PT   treatment of cells, or growth surfaces, to inhibit proliferation,
PT   promote differentiation or modulate adhesion, for in vivo prodn. of
PT   hormones, neuro-transmitter(s) etc
PS   Claim 22; Page 70; 84pp; English.
CC   The sequences given in R92739-41 are peptides which were used in the
CC   method of the invention to control the distribution of cells within
CC   a bioartificial organ (BAO).  These peptides have been particularly
CC   useful in promoting cellular attachment.  These peptides are pref.
CC   bound to the membrane of the BAO which is a biocompatible,
CC   permselective jacket.  These peptides act to control the distribution
CC   of the core of living cells included in the BAO after in vivo
CC   implantation.  BAO are used therapeutically to produce e.g.
CC   neurotransmitters, hormones, cytokines, growth factors, enzymes, etc.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 17;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6


RESULT    7
ID   R29158 standard; peptide; 6 AA.
AC   R29158;
DT   15-APR-1993  (first entry)
DE   PEG-contg. peptide deriv #1 comprising RGD-motif.
KW   Cell adhesion; Polyethylene glycol; fibronectin.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   modified_site   1
FT                   /note= "acylated by ROCCH2(OCH2CH2)nOCH2CO-
FT                   where R = GRGDSP and n = 1-150"
FT   modified_site   6
FT                   /note= "opt. amidated and if so, R is also
FT                   amidated"
PN   J04305597-A.
PD   28-OCT-1992.
PF   02-APR-1991; 068669.
PR   02-APR-1991; JP-068669.
PA   (FUJF ) FUJI PHOTO FILM CO LTD.
DR   WPI; 92-410149/50.
PT   New peptide-contg. polyethylene glycol derivs. - used to inhibit
PT   cancer metastasis or platelet aggregation and as lymphocyte
PT   activators
PS   Example 1; Page 3; 6pp; Japanese.
CC   The polyethylene glycol-contg. peptide derivs. contain the
CC   Arg-Gly-Asp (RGD) motif found in fibronectin. The derivs can be used
CC   as platelet aggregation inhibitors, lymphocyte activators and cancer
CC   metastasis inhibitors. See also R29159 and R33149.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 6;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6


RESULT    8
ID   R44046 standard; peptide; 6 AA.
AC   R44046;
DT   02-JUN-1994  (first entry)
DE   RGD peptide derivative #4.
KW   Drug; organ transplantation; rejection; immune disorder;
KW   systemic lupus.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   modified_site   1
FT                   /note= "C13H27CO-Gly"
FT   modified_site   4
FT                   /note= "Pro-OH"
PN   J05255105-A.
PD   05-OCT-1993.
PF   16-MAR-1992; 058460.
PR   16-MAR-1992; JP-058460.
PA   (FUJF ) FUJI PHOTO FILM CO LTD.
DR   WPI; 93-348360/44.
PT   Immuno-control drug for organ transplant rejection etc. - contains
PT   peptide having arginine, glycine, aspartic acid sequence
PS   Disclosure; Page 3; 11pp; Japanese.
CC   The sequences given in R44043-47 and R53144 represent examples of the
CC   claimed RGD containing peptide of the invention.  These peptides all
CC   correspond to the generic formulae:
CC   HO2-(CH2)m-C(O)-([X]-Arg-Gly-Asp-[Y])n-O-CH2CH(OR1)CH2OR2  or
CC   R3-([X]-Arg-Gly-Asp-[Y])n-Z
CC   [X], [Y] = amino acid or peptide residues;
CC   m = 1-5;
CC   n = 1-5;
CC   R1, R2 = H or 8-24C acyk or alkyl;
CC   R3 = 6-24C acyl;
CC   Z = hydroxyl or amino.
CC   These peptides form the active part of drugs which are used for the
CC   control of organ transplantation rejection or immune disorders such
CC   as systemic lupus.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 8;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
```

```
          ||||||
Qy      1 GRGDSP 6


RESULT    9
ID   R35465 standard; peptide; 6 AA.
AC   R35465;
DT   26-AUG-1993  (first entry)
DE   Propene-amide deriv. polymer metastasis inhibitor.
KW   Low toxicity; higher cell adhesion ability; metastasis inhibition.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   modified_site   1
FT                   /note= "CH2=CCH3CO-Gly"
PN   J05097699-A.
PD   20-APR-1993.
PF   04-OCT-1991; 258095.
PR   04-OCT-1991; JP-258095.
PA   (FUJF ) FUJI PHOTO FILM CO LTD.
DR   WPI; 93-164370/20.
PT   Low toxicity metastasis inhibitor - composed of propene-amide
PT   deriv. polymer or its pharmacologically acceptable salts
PS   Claim 1; Page 2; 12pp; Japanese.
CC   The sequence is that of a polymer of propene amide deriv. which has
CC   a higher cell adhesion ability, compared with that of the core
CC   sequence of cell adhesive protein. It has various kinds of
CC   biological activities e.g. metastasis inhibition and has low
CC   toxicity.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 7;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6


RESULT   10
ID   W71248 standard; Peptide; 6 AA.
AC   W71248;
DT   18-NOV-1998  (first entry)
DE   Peptide sequence of the invention.
KW   Hepatitis drug; integrin inhibitor; integrin binding; VLA-4; treatment;
KW   hepatitis.
OS   Synthetic.
PN   WO9837914-A1.
PD   03-SEP-1998.
PF   26-FEB-1998; J00802.
PR   26-FEB-1997; JP-042493.
PA   (TORA ) TORAY IND INC.
PI   Kainoh M, Moriya K, Tanaka T;
DR   WPI; 98-480938/41.
PT   Integrin inhibitors including antibodies, proteins, nucleic acids,
PT   saccharide(s), capable of binding to integrin(s) as active
PT   ingredient in remedies - for treating hepatitis, by inhibiting cell
PT   adhesion
PS   Example 4; Page 19; 35pp; Japanese.
CC   The present sequence is used in the course of the invention. The
CC   specification describes Hepatitis drugs which contain integrin
CC   inhibitors as the active ingredient. These integrin inhibitors include
CC   antibodies, proteins, polypeptides, peptides, nucleic acids, saccharides,
CC   and their derivatives. They also include low molecular weight compounds
CC   capable of binding to integrins (e.g. alpha chain type with alpha 1,
CC   alpha 2, etc., or beta chain type with beta 1, beta 2, etc.),
CC   particularly anti-VLA-4 antibody, VLA-4 inhibiting peptides and low
CC   molecular weight VLA-4 inhibiting compounds. The products can be used
CC   for treating hepatitis.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 35;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6


RESULT   11
ID   W79658 standard; peptide; 6 AA.
AC   W79658;
DT   08-DEC-1998  (first entry)
DE   Cyclo(1,6)-Gly-Arg-Gly-Asp-Ser-Pro.
KW   Platelet aggregation inhibitor; antithrombotic; antimetastatic; cyclic.
OS   Synthetic.
FH   Key             Location/Qualifiers
FT   Modified_site   1..6
FT                   /note= "the alpha-amino group of Gly(1) is condensed
FT                    with the carboxy of Pro(6) to give a cyclic molecule"
PN   US5643872-A.
PD   01-JUL-1997.
PF   26-AUG-1994; 296621.
PR   19-DEC-1990; US-630124.
PR   23-OCT-1989; US-425906.
PR   28-SEP-1990; US-590635.
PR   26-AUG-1994; US-296621.
PA   (SMIK ) SMITHKLINE BEECHAM CORP.
PI   Ali FE, Samanen JM;
DR   WPI; 97-350267/32.
PT   New peptide derivatives - are useful in inhibiting platelet
PT   aggregation and clot formation, and for inhibiting reocclusion of
PT   blood vessels following fibrinolytic therapy.
PS   Disclosure; Column 7; 28pp; English.
CC   The patent describes new cyclic peptides which have a core of formula
CC   -B-Gly-Asp-, where B = a D- or L-amino acid chosen from Arg, HArg
CC   (i.e. homoarginine), (Me2)Arg, (Et2)Arg and Lys (or an alpha-substituted
CC   derivative of these). Cyclisation is effected through specific types of
CC   covalent linkages. The cyclic peptides are platelet aggregation and clot
CC   formation inhibitors. They may be used in treatment of acute myocardial
CC   infarction, deep vein thrombosis, pulmonary embolism, dissecting
CC   aneurysm, transient ischaemic attack, stroke, unstable angina,
CC   disseminated intravascular coagulation, septicaemia, surgical or
CC   infectious shock, post-operative and post-partum trauma, cardiopulmonary
CC   bypass surgery, incompatible blood transfusion, abruptio placenta,
CC   thrombotic thrombocytopaenic purpura, snake venom and immune diseases.
CC   They may also be used for inhibiting reocclusion of blood vessels
CC   following fibrinolytic therapy. They may also be used in prevention of
CC   metastatic conditions.
CC   The present sequence is a specific example of the new peptides.
SQ   Sequence   6 AA;

  Query Match          100.0%;  Score 41;  DB 35;  Length 6;
  Best Local Similarity 100.0%;  Pred. No. 6.60e+01;
  Matches    6;  Conservative    0;  Mismatches   0;  Indels   0;  Gaps   0;

Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6


RESULT   12
ID   W86169 standard; peptide; 7 AA.
AC   W86169;
DT   04-MAR-1999  (first entry)
DE   Peptide used in gel contracton assays.
KW   Wound contraction; reduction; inhibition; tissue regeneration; scar;
KW   wound; joint motion; body deformation; gel contraction.
OS   Synthetic.
PN   US5851994-A.
PD   22-DEC-1998.
PF   06-JUN-1995; 473025.
PR   06-JUN-1995; US-473025.
PR   28-APR-1994; US-234979.
PA   (LJOL-) LA JOLLA CANCER RES FOUND.
```

PI Polarek J, Schreiber R;
DR WPI; 99-080478/07.
PT Inhibition of wound contraction - with peptide derivatives rich in
PT basic amino acids
PS Example 2; Column 13; 16pp; English.
CC The invention provides methods for reduction or inhibition of wound
CC contraction that comprises administration of a peptide having more than
CC 3 consecutive basic amino acid residues. Alternatively, the peptide
CC contains the amino acid sequence Arg-Gly-Asp and a basic amino acid
CC sequence, or the peptide comprises 6-30 amino acids in which at least
CC 4 out of a sequence of 6 consecutive amino acids are basic amino acids.
CC The method is used to allow normal tissue regeneration without excessive
CC scar formation which, in the case of large wounds, can result in loss of
CC joint motion or major body deformation. This peptide is used in gel
CC contraction assays along with the claimed peptides (W86170-83) to
CC determine the activity of a peptide to reduce or inhibit gel contraction.
SQ Sequence 7 AA;

Query Match 100.0%; Score 41; DB 39; Length 7;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
||||||
Qy 1 GRGDSP 6

RESULT 13
ID R11505 standard; peptide; 7 AA.
AC R11505;
DT 12-JUN-1991 (first entry)
DE Cell attachment promoting peptide.
KW Fibrin; aggregation.
OS Synthetic.
FH Key Location/Qualifiers
FT active_site 2..4
PN US4988621-A.
PD 29-JAN-1991.
PF 10-DEC-1987; 131130.
PR 24-MAY-1985; US-738078.
PR 10-DEC-1987; US-131130.
PA (JOLL-) LA JOLLA CANCER FOU.
PI Ruoslahti EI, Hayman EG, Pierschbacher MD;
DR WPI; 91-116404/16.
PT Peptide(s) contg. arginine-glycine-aspartic acid sequence - used
PT to prevent and reverse cell attachment or to promote cell
PT aggregation.
PS Disclosure; Page 8; 12pp; English.
CC The peptide, or shorter versions contg. the RGD active site from
CC fibronectin, can be used to prevent and reverse attachment of cells
CC to substrates. This can be used in cell prodn., fermentation, cell
CC line prepn., cell matrix prodn., diagnostics and therapy. The
CC peptide can be used for eg mobilisation of bone marrow cells;
CC prevention and reversal of attachment of disseminated tumour cells
CC locally such as in the case of an operation performed in the peri-
CC toneal cavity, to prevent adhesions and scar formations locally as
CC in the case of eye operations, for prophylactic inhibiton of E. coli
CC binding to epithelial cells of the urinary tract or intestine,
CC diagnosis and treatment of E. coli related infections, and
CC identification of various pathogenic bacterial strains. The
CC peptide is pref. prepd. by solid phase synthesis.
CC See also R11506.
SQ Sequence 7 AA;

Query Match 100.0%; Score 41; DB 2; Length 7;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
||||||
Qy 1 GRGDSP 6

RESULT 14
ID R55365 standard; peptide; 7 AA.
AC R55365;
DT 28-JAN-1995 (first entry)
DE Peptide for use in an immunoassay system for HLA antibodies.
KW Human platelet antigen; glycoprotein; GPIIb; GPIIIa; diagnostic;
KW alloimmune thrombocytopaenia; post-transfusion purpura.
OS Synthetic.
PN WO9411740-A.
PD 26-MAY-1994.
PF 08-NOV-1993; G02297.
PR 07-NOV-1992; GB-023390.
PA (COMM-) COMMON SERVICES AGENCY.
PI Bessos H, Murphy WG;
DR WPI; 94-183676/22.
PT Immunoassay for antibodies against human platelet antigen - uses
PT substrate coated with genotyped glyco:proteins GPIIb or GpIIIa
PT suitable for large scale screening
PS Disclosure; Page 17; 28pp; English.
CC The peptide is used for affinity purification of GPIIb or GPIIIa
CC The recovered protein eluted with a soln.
CC contg. an RGD peptide may be used in an immunoassay to detect
CC antibodies to human platelet antigen (HLA) 1 or 3. Such antibodies
CC are involved in neonatal alloimmune thrombocytopaenia and post-
CC transfusional purpura.
SQ Sequence 7 AA;

Query Match 100.0%; Score 41; DB 10; Length 7;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
||||||
Qy 1 GRGDSP 6

RESULT 15
ID W09092 standard; peptide; 7 AA.
AC W09092;
DT 05-MAR-1997 (first entry)
DE Cell attachment peptide, used in a cell growth substrate.
KW Cell attachment protein; CAP; cell attachment peptide;
KW adhesion peptide; dialdehyde starch; cell growth; in vitro.
OS Synthetic.
FH Key Location/Qualifiers
FT modified_site 1
FT /note= "peptide may be bound to aldehydic groups
FT on the coated base material (see comments)
FT via the free alpha-amino group"
FT modified_site 7
FT /note= "peptide may be bound to aldehydic groups
FT on the coated base material (see comments)
FT via the free side-chain epsilon-amino group"
PN US5563215-A.
PD 08-OCT-1996.
PF 05-NOV-1992; 972327.
PR 05-NOV-1992; US-972327.
PR 21-JAN-1994; US-184666.
PA (CORG ) CORNING INC.
PI Bryhan MD, Hersh LS, Smith FM;
DR WPI; 96-464201/46.
PT A cell growth substrate contg. di:aldehyde starch attached to its
PT surface - useful for growing large numbers of cells for medical
PT testing and research
PS Claim 2; Column 12; 20pp; English.
CC A substrate for growing cells comprising (a) a polymeric base material
CC selected from polystyrene, polypropylene, polyethylene terephthalate,
CC polyallomer, cellulose acetate and polymethylpentene; (b) a coating,
CC on the surface of the base material, containing dialdehyde starch
CC and (c) a cell attachment peptide (cap) coupled to the coating.
CC Preferred cap sequences are Gly-Arg-Gly-Asp-Ser-Pro-Lys (i.e. the
CC present sequence), Lys-Gly, Gly-Gly-Tyr-Arg and Arg-Lys-Asp-Val-Tyr.
CC Large numbers of cells can be grown on the substrate.

SQ Sequence 7 AA;

Query Match 100.0%; Score 41; DB 20; Length 7;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Db      1 grgdsp 6
          ||||||
Qy      1 GRGDSP 6
```

Search completed: Thu Dec 23 10:07:16 1999
Job time : 20 secs.